

METHOD TO REDUCE PHOTORESIST PATTERN COLLAPSE BY CONTROLLED SURFACE MICROROUGHENING

Abstract

A method is provided for preparing a substrate for photolithographic patterning. The method includes providing a substrate having at least an exposed rough surface layer including a polymeric material. The rough surface layer has surface features characterized by feature step height varying between about two percent and twenty percent of the minimum photolithographic half-pitch. A layer of photoresist material is then provided over the exposed rough surface layer and patterned.